

Fixturing Equipment From Bug-O Systems



Operator Controlled
Mechanization

www.bug-o.com

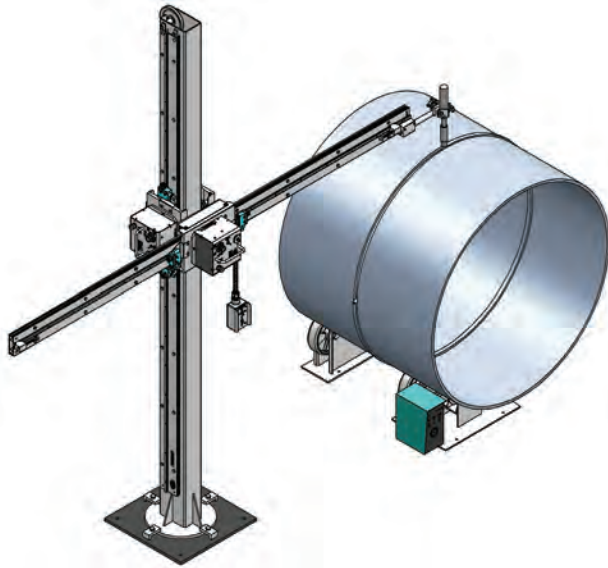
Bug-O Systems is committed to empowering our customers by providing operator controlled mechanized solutions for their welding, cutting and custom applications.



Standard Fixturing Equipment

Mini-Minipulator BUG-1965

The MINI-MINIPULATOR II includes solid state variable speed, vertical and horizontal DC drives, pendant control of "up-off-down" and "forward-off-reverse," limit switches on both drives, and a counterweight in column center. The base rotates 360 degrees.



TECHNICAL DATA:

Specifications:

Power Requirement:

BUG-1965	120 VAC/50-60/1
BUG-1966	220 VAC/50-60/1
BUG-1967	42 VAC/50-60/1

Vertical Travel: 65" (1651 mm)

Minimum Height: 21-1/2" (546 mm)
From Centerline of Horizontal Rail to Mounting Surface (Floor)

Maximum Height: 86-1/2" (2197 mm)

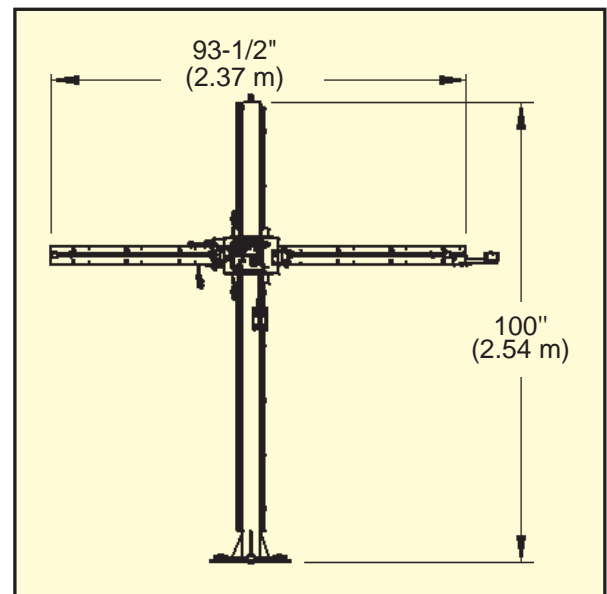
Horizontal Travel: 64" (1626 mm)
Measured from Centerline of Column to End of Horizontal Rail

Load Capacity: 20 lbs. (10kg)

Net Weight: 420 lbs. (191 kg)

Shipping Weight: 500 lbs. (227 kg)

Dimensions: 93-1/2"L x 15"W x 100"H
(2375 mm x 380 mm x 2540 mm)





Standard Fixturing Equipment

Torch Supports Freestanding Torch Support FTS-1020



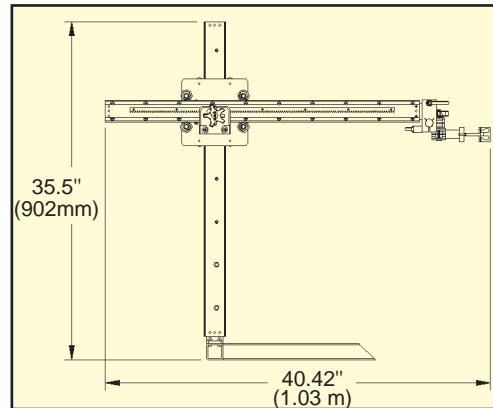
FTS-1020 shown above.

Total Vertical Adjustment: 25" (635 mm)

Total Horizontal Adjustment: 25" (635 mm)

Net Weight: 35 lbs. (11.34 kg)

The **Freestanding Torch Support FTS-1020** is a small manually operated torch manipulator. Rack and pinion movement on hardened "V" ways provides effortless and smooth positioning of cutting torch or welding gun. The "T" base comes with pre-drilled holes for quick installation into your fixture.



Freestanding Torch Support

FTS-1025 110 volt FTS-1025-240 240 volt



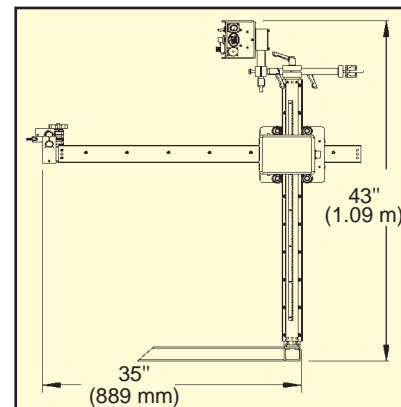
Application of FTS-1025 Automatic Height Control with Linear Weaver shown above.

Total Vertical Adjustment: 25" (635 mm)

Total Horizontal Adjustment: 25" (635 mm)

Net Weight: 41 lbs. (19 kg)

The **FTS-1025 Free Standing Torch Support with Automatic Height Control** is a compact, easy to use system, designed to maintain a constant torch-to-work distance automatically. This system can be used for Sub-Arc, Innershield and MIG welding. The actual weld current is sensed continuously using a shunt. The signal is filtered, amplified and compared to a set point value. Any error from the set point is noticed by the controller and it will raise the torch up or down to maintain precise torch to work distance automatically. The FTS-1025 requires a Constant Voltage (CV) Power Source. Consult the factory for your application.





Standard Fixturing Equipment - Weavers

The Stand Alone Weavers are compact lightweight oscillating weld weavers designed to be mounted on Manipulators and Fixtures. They offer the ability to perform weave welds or straight-line stringer welds and can be used to steer the torch during welding operations. They also feature adjustable independent dwell settings for controlled penetration and undercut elimination.



CDS-6350
Stand Alone Linear Weaver



BUG-6350
Stand Alone Pendulum Weaver

TECHNICAL DATA:

Specifications:

Power Requirement:

CDS-6350 120 VAC/50-60 Hz
 CDS-6352 240 VAC/50-60 Hz
 CDS-6354 42 VAC/50-60/1

Weave Speed: 4-100 ipm (102-2540 mm/min)

Dwell: 0-3 seconds each side

Weave Width: 0-2" (0-50 mm)

Steering: 4" - 2" (100-50 mm)
each side of center

Net Weight: 17 lbs. (7.7 kg)

Weaver Dimensions: 6.75"L x 5.00"W x 3.88"H
(171 x 127 x 99 mm)

TECHNICAL DATA:

Specifications:

Power Requirement:

BUG-6350 120 VAC/50-60 Hz
 BUG-6352 240 VAC/50-60 Hz
 BUG-6354 42 VAC/50-60/1

Weave Speed: 4-200 ipm (102-5100 mm/min)

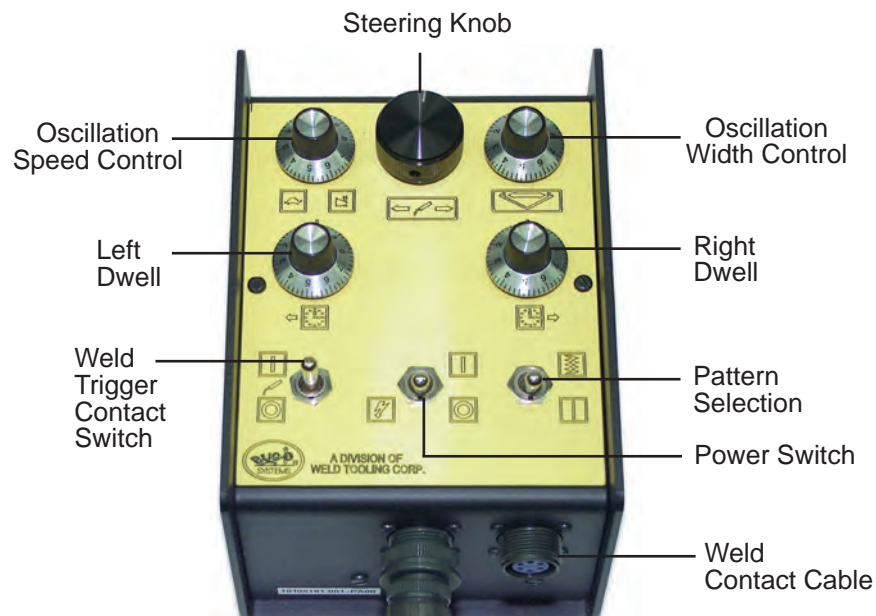
Dwell: 0-3 seconds each side

Weave Width: 0-2" (0-50 mm)

Steering: 4" - 2" (100-50 mm)
each side of center

Net Weight of System: 21 lbs. (9.5 kg)

Weaver Dimensions: 5.50"L x 3.00"W x 4.00"H
(139 x 76 x 120 mm)



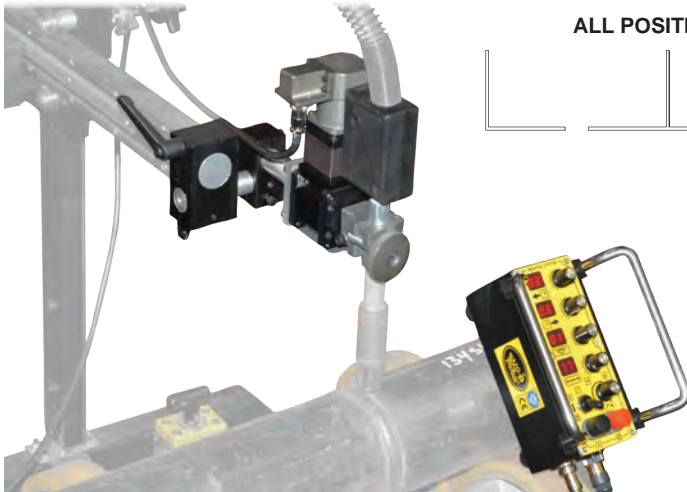


Standard Fixturing Equipment - Weavers

K-BUG 5050 Pendulum

INDUSTRY PROVEN
Heavy Fabrication & Manufacturing, Shipyards, Oil & Gas Industry

WELDING APPLICATIONS:



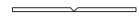
ALL POSITION FILLETS



LAP JOINTS



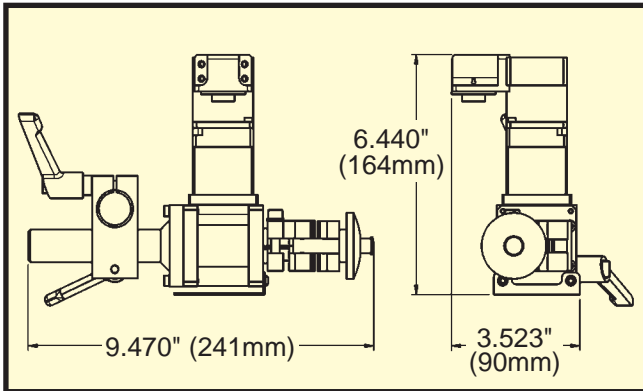
SEAM WELDS



Features:

- Compact, lightweight design for ease of use
- Independent control of dwell times from 0 - 10 seconds
- Magnetic control box
- Torch "Quick Connect"
- Weave speed and width controls
- Modular design for a multitude of applications
- Motor with high ratio gearbox for pendulum motion prevents torch movement when power is off
- High speed motor for pendulum weaving
- Programmable puddle control and crater fill times
- Independent control of pendulum weaving right and left dwell times
- Closed loop speed control to prevent drift from center weld position
- Storage of motion parameters after power is turned off
- Weld Contactor ON/OFF Switch

Dimensions:



Technical Data: K-BUG 5050

Power Requirements:

KBUG-5050	120VAC/50-60Hz/1Ph
KBUG-5052	240VAC/50-60Hz/1Ph

Net Weight: 10 lbs. (4.5 kg.)

Shipping Weight: 14 lbs. (6.3 kg.)

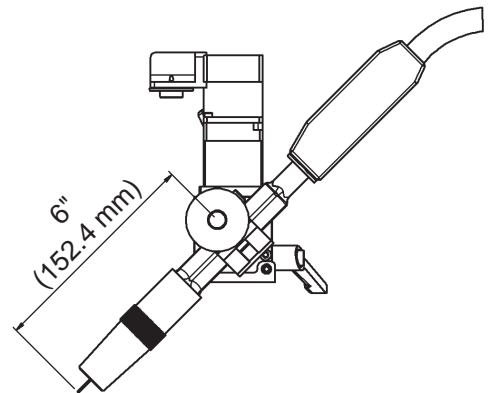
Welding Position: All position

Torch Holder: Fits torch barrels up to 0.75" (19 mm)

Weaver Speed: 0 - 188 in/min (4775 mm/min)

Weave Width*: 0 - 1 in (25.4 mm)

Cycles*: 80 cycles per min. at 1" (25.4 mm) stroke
115 cycles per min. at .5" (12.7 mm) stroke
200 cycles per min. at .25" (6.35 mm) stroke

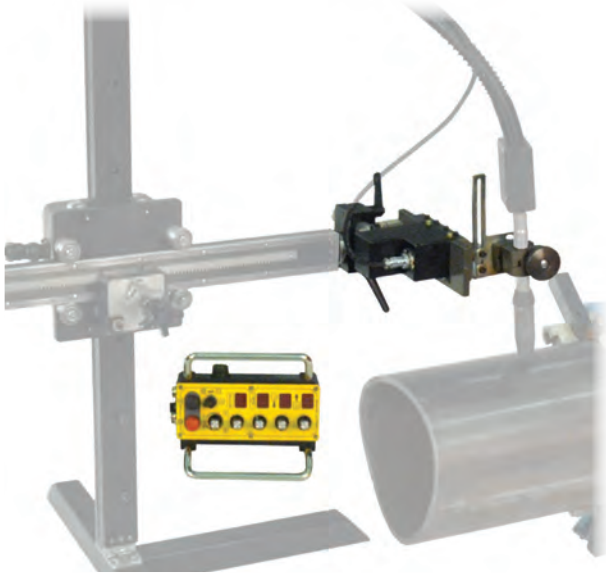


* When torch Pivot-to-Tip length is 6" (152.4 mm) as shown above. Increasing the Pivot-to-Tip length will increase the maximum speed and the weave width.



Standard Fixturing Equipment - Weavers

K-BUG 6050 Linear



INDUSTRY PROVEN
Heavy Fabrication & Manufacturing, Shipyards, Oil & Gas Industry

WELDING APPLICATIONS:

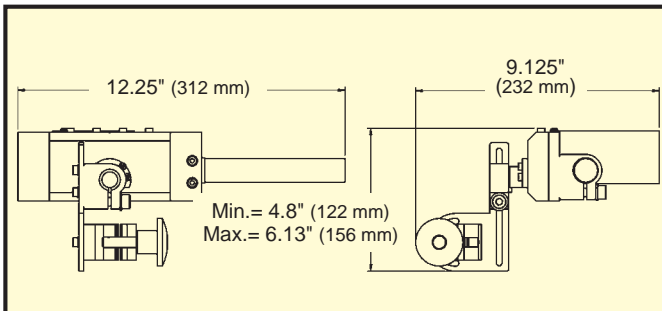
SEAM WELDS



Features:

- Compact, lightweight design for ease of use
- Independent control of dwell times from 0 - 10 seconds
- Magnetic control box
- Torch "Quick Connect"
- Weave speed and width controls
- Modular design for a multitude of applications
- Weaver motor design prevents torch movement when power is off
- Closed loop speed and position control
- High speed motor for linear weaving
- Programmable puddle build and crater fill times
- Independent control of linear weaving right and left dwell times
- Closed loop speed control to prevent drift from center of stroke
- Storage of motion parameters after power is turned off
- Weld Contactor ON/OFF Switch

Dimensions:



Technical Data: K-BUG 6050

Power Requirements:

KBUG-6050 120VAC/50-60Hz/1Ph

KBUG-6052 240VAC/50-60Hz/1Ph

Net Weight: 14 lbs. (6.3 kg.)

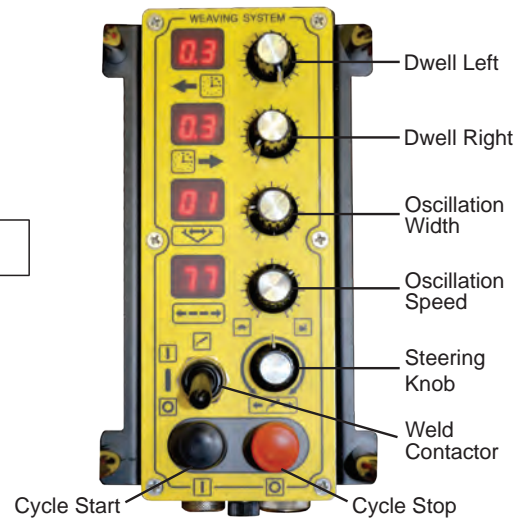
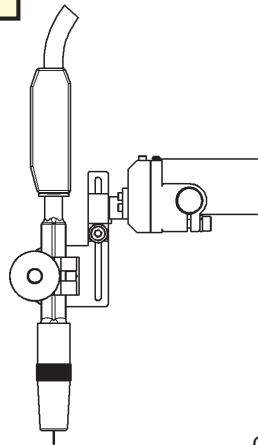
Shipping Weight: 18 lbs. (8.2 kg.)

Welding Position: All position

Torch Holder: Fits barrels up to 0.75 in (19 mm) dia.

Weaver Speed: 0 - 100 in/min (2540 mm/min)

Weave Width: 0 - 2 in (51 mm)



K-BUG 5050 & K-BUG 6050 Controls

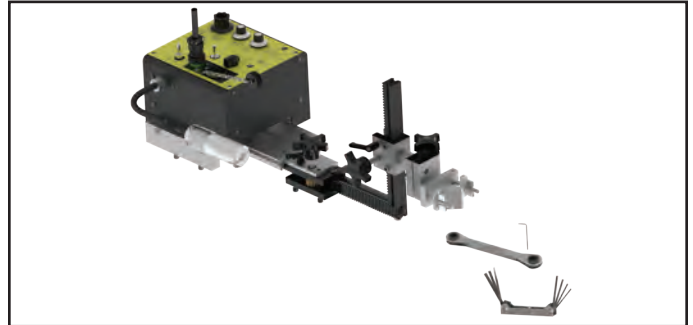


Heavy Duty Fixturing Equipment - Weavers

The Heavy Duty Stand Alone Weaver and the Speed Weaver II are designed for heavy duty manipulators. They offer the ability to perform weave welds or straight-line stringer welds and can be used to steer the torch during welding operations. They also feature adjustable independent dwell settings for controlled penetration and undercut elimination.



WPD-2500
Heavy Duty Stand Alone Weaver



BUG-5300
Speed Weaver II

TECHNICAL DATA:

Specifications:

Power Requirement:	95 watts
WPD-2500	120 VAC/50-60 Hz
WPD-2502	240 VAC/50-60 Hz
WPD-2504	42 VAC/50-60/1
Weave Speed:	2-100 in/min (5.1-254 cm/min)
Dwell:	.06-3 seconds
Weave Width:	4" (101.6 mm)
Steering:	+/-1 inch each side of center
Net Weight:	13.5 lbs. (6 kg)
Weaver Dimensions:	7.25" L x 5.50" W x 5.37" H (184 x 140 x 137 mm)

TECHNICAL DATA:

Specifications:

Power Requirement:	
BUG-5300	120VAC/50-60/1
BUG-5302	240VAC/50-60/1
BUG-5304	42VAC/50-60/11
Weave Speed:	6-150 ipm (150-3800 mm/min)
Dwell:	0-3 seconds each side; independent
Cycles / Minute:	Maximum; (Zero Dwell Left and Right)
Stroke:	.125" .25" .5" 1.0" 2.0" (3 mm)(6 mm)(12 mm)(25 mm)(50 mm)
Cycles:	160 120 85 60 37
Net Weight:	23 lbs. (10.5 kg)
Weaver Dimensions:	19" L x 11" W x 11" H (483 x 279 x 279 mm)

